ABSTRACT

[0052]   A mobile satellite payload 18 and a method for sampling communication signals 26 are provided. The mobile satellite payload 18 uses a plurality of receive radiating elements 24 within a phase array antenna 22 to convert the communication signals 26 to received signals [S(t)]. A plurality of low noise amplifiers (LNAs) 28 amplify the received signals [S(t)] to then be received by a plurality of analog-to-digital (A/D) converters 29. The A/D converters 29 transform the received signals [S(t)] into digital baseband signals [S''(t)].